GE Healthcare





510(k) Premarket Notification Submission

510(k) Summary

In accordance with 21 CFR 807.92 the following summary of information is provided:

<u>Date:</u> May 29, 2009

Submitter: GE Healthcare, GE Medical Systems Information Technologies

GmbH

Munzinger Str. 3

79111 Freiburg, Germany

Primary Contact Person: Patricia Taige

Regulatory Affairs - Diagnostic Cardiology

GE Healthcare, GE Medical Systems Information Technologies

9900 Innovation Drive Wauwatosa, WI 53226 Phone: (414) 721-3222 Fax: (414) 721-3863

Secondary Contact David Wahlig

Person: RA Director - Patient Monitoring

GE Healthcare, GE Medical Systems Information Technologies

8200 West Tower Avenue Milwaukee, WI 53223 Phone: (262) 510-9997 Fax: (414) 918-8112

Device: Trade Name: HEART-Exercise

Common/Usual Name: ECG Analysis Computer, Programmable Diagnostic Computer

<u>Classification Names:</u> 21 CFR 870.1425

Product Code: DQK

<u>Predicate Device(s):</u> CardioSoft/CASE Cardiac Testing System (K031561)

Device Description: HEART-Exercise is an algorithm library for exercise testing

systems. It is able to process up to 15 lead ECGs with a high noise and artifact level and provides real-time and retrospective computerized analysis of stress test ECGs for

evaluation by the user.

Intended Use: The HEART-Exercise is to be used in a hospital, doctor's office,

or clinical environment by competent healthcare professionals

for assessing exercise test results.

The results of HEART-Exercise are intended to be used by



GE Healthcare

510(k) Premarket Notification Submission

qualified personnel in evaluating the patient in conjunction with the patient's clinical history, symptoms, other diagnostic tests, as well as the professional's clinical judgment.

HEART-Exercise provides measurements, prognostic scores, and interpretive statements of the exercise test for which the physician renders his/her own opinion. HEART-Exercise does not offer a diagnostic opinion to the user.

The Exercise Test Interpretation (XTI) is restricted to adults (age ≥ 18 years). The measurements apply to adults and children able to accomplish an exercise test

Technology:

The proposed HEART-Exercise algorithm library employs the same fundamental scientific technology as the HEART-Exercise algorithm library currently cleared as part of the predicate device CardioSoft/CASE Cardiac Testing System (K031561)

<u>Determination of</u> Substantial <u>Equivalence</u>:

Summary of Non-Clinical Tests:

The HEART-Exercise algorithm library and its applications comply with voluntary standards as detailed in Section 9 and 16 of this premarket submission. The following quality assurance measures were applied to the development of the system:

- Risk Analysis
- Requirements Reviews
- Design Reviews
- Testing on unit level (Module verification)
- Final acceptance testing (Validation)
- Performance testing (Verification)

Summary of Clinical Tests:

The subject of this premarket submission, HEART-Exercise, did not require clinical studies to support substantial equivalence.

Conclusion:

GE Healthcare considers the HEART-Exercise algorithm library to be as safe, as effective, and performance is substantially equivalent to the predicate device.



Food and Drug Administration 9200 Corporate Boulevard Rockville MD 20850

JUL 29 2009

GE Healthcare, GE Medical Systems Information Technologies GmbH c/o Ms. Patricia Taige Regulatory Affairs – Diagnostic Cardiology 9900 Innovation Drive Wauwatosa, WI 53226

Re: K091594

HEART - Exercise

Regulation Number: 21 CFR 870.1025

Regulation Name: Arrhytmia detector and alarm (including ST- segment measurement

and alarm)

Regulatory Class: Class II (two)

Product Code: MHX, (DQK, DXH, DPS)

Dated: May 29, 2009 Received: June 02, 2009

Dear Ms. Taige:

We have reviewed your Section 510(k) premarket notification of intent to market the device referenced above and have determined the device is substantially equivalent (for the indications for use stated in the enclosure) to legally marketed predicate devices marketed in interstate commerce prior to May 28, 1976, the enactment date of the Medical Device Amendments, or to devices that have been reclassified in accordance with the provisions of the Federal Food, Drug, and Cosmetic Act (Act) that do not require approval of a premarket approval application (PMA). You may, therefore, market the device, subject to the general controls provisions of the Act. The general controls provisions of the Act include requirements for annual registration, listing of devices, good manufacturing practice, labeling, and prohibitions against misbranding and adulteration.

If your device is classified (see above) into either class II (Special Controls) or class III (PMA), it may be subject to such additional controls. Existing major regulations affecting your device can be found in the Code of Federal Regulations, Title 21, Parts 800 to 898. In addition, FDA may publish further announcements concerning your device in the <u>Federal Register</u>.

Page 2 – Ms. Patricia Taige

Please be advised that FDA's issuance of a substantial equivalence determination does not mean that FDA has made a determination that your device complies with other requirements of the Act or any Federal statutes and regulations administered by other Federal agencies. You must comply with all the Act's requirements, including, but not limited to: registration and listing (21 CFR Part 807); labeling (21 CFR Part 801); good manufacturing practice requirements as set forth in the quality systems (QS) regulation (21 CFR Part 820); and if applicable, the electronic product radiation control provisions (Sections 531-542 of the Act); 21 CFR 1000-1050. This letter will allow you to begin marketing your device as described in your Section 510(k) premarket notification. The FDA finding of substantial equivalence of your device to a legally marketed predicate device results in a classification for your device and thus, permits your device to proceed to the market.

If you desire specific advice for your device on our labeling regulation (21 CFR Part 801), please contact the Office of Compliance at (240) 276-0120. Also, please note the regulation entitled, "Misbranding by reference to premarket notification" (21 CFR Part 807.97). You may obtain other general information on your responsibilities under the Act from the Division of Small Manufacturers, International and Consumer Assistance at its toll-free number (800) 638-2041 or (240) 276-3150 or at its Internet address http://www.fda.gov/cdrh/industry/support/index.html.

Sincerely yours,

Bram D. Zuckerman, M.D.

Director

Division of Cardiovascular Devices

Office of Device Evaluation

Center for Devices and

Radiological Health

Enclosure



GE Healthcare

510(k) Premarket Notification Submission

	510(k) Number (if known):
	Device Name: HEART-Exercise
	Indications for Use:
•	The HEART-Exercise is to be used in a hospital, doctor's office, or clinical environment by competent healthcare professionals for assessing exercise test results.
	The results of HEART-Exercise are intended to be used by qualified personnel in evaluating the patient in conjunction with the patient's clinical history, symptoms, other diagnostic tests, as well as the professional's clinical judgment.
	HEART-Exercise provides measurements, prognostic scores, and interpretive statements of the exercise test for which the physician renders his/her own opinion. HEART-Exercise does not offer a diagnostic opinion to the user.
	The Exercise Test Interpretation (XTI) is restricted to adults (age ≥ 18 years). The measurements apply to adults and children able to accomplish an exercise test.
	Prescription Use x AND/OR Over-The-Counter Use (Part 21 CFR 801 Subpart D) (Part 21 CFR 801 Subpart C)
	(PLEASE DO NOT WRITE BELOW THIS LINE - CONTINUE ON ANOTHER PAGE IF NEEDED)
	Concurrence of CDRH, Office of Device Evaluation (ODE)
	Well Sector B Zuckerman
	(Division Sign-Off) 7/29/09
· .	Division of Cardiovascular Devices 510(k) Number 1091594
	~ 0.0 (K) MUHDOI ~ 1.0